1971 Short Course "Update on Detergents and Raw Materials" Whiteface Inn on Lake Placid New York, June 13-16, 1971

The Committee for the AOCS Short Course on Surfactants, Detergents and Raw Materials has plans well under way for a very promising program.

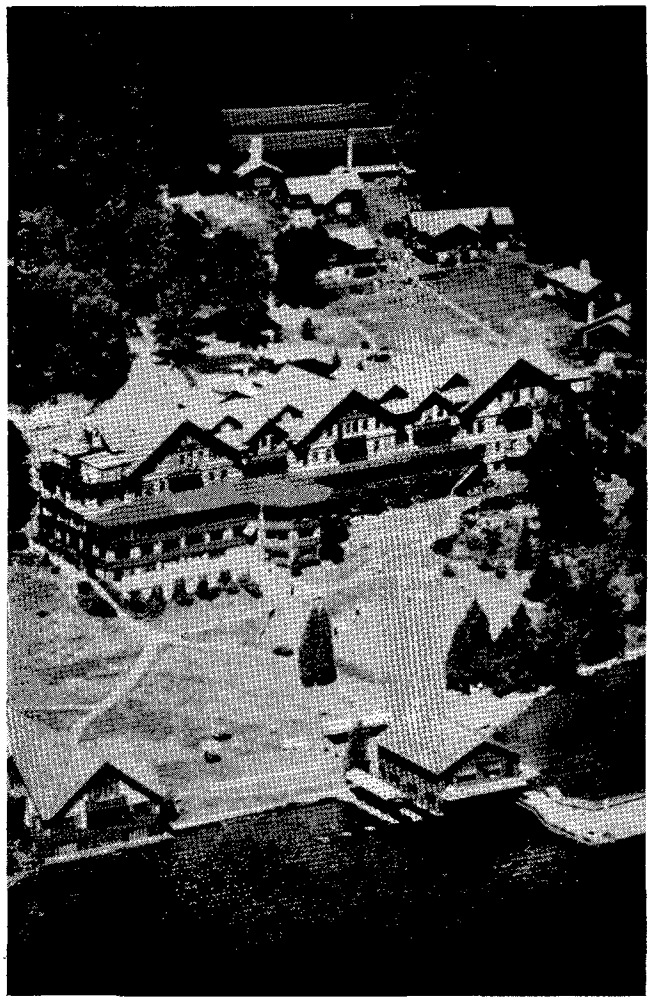
The Course, entitled, "Update on Detergents and Raw Materials," is scheduled for June 13–16, 1971 at the scenic Whiteface Inn on Lake Placid, New York.

The program is being developed to include both morning and evening sessions. The Committee has extented welcome offers to present material on any of the far-reaching topics which will include:

Theory and Fundamentals
Equipment
Environmental Considerations
Safety and Testing
New Raw Materials and Adjuvents
Consumer Marketing
Economics—New Plant Investment

Communications on the Short Course should be directed to: L. J. Garrison, AOCS Program Chairman, Jefferson Chemical Co., Inc., 3336 Richmond Ave., Houston, Texas 77006.

Watch for further announcements on the Short Course in upcoming issues of the Journal.



Aerial view of Whiteface Inn, Lake Placid, N.Y.

Find Addition of Animal Fat Adds Nutritive Value, Reduces Air Pollution From Alfalfa Dehydrator Plants

Recent research at Kansas State University has proved the practicability of using liquid animal fat to combat air pollution resulting from alfalfa dehydrator operations, and to simultaneously upgrade the nutrient value of the alfalfa meal being produced.

The tests were set up and conducted under the direction of J. C. Annis, Head of the Fine Particle Laboratory, Institute for Environmental Research, Kansas State University in Manhattan, Kan.; V. E. Headley, CPC-International, Argo, Ill.; and S. L. Lima, Combustol, Industria E Commercio Ltda., of Jaragua, Brazil.

Basically, the procedure developed in this study—which was performed in the pilot feed manufacturing facilities of the Department of Grain Science and Industry and the Fine Particle Laboratory of the Institute for Environmental Research at Kansas State University—calls for spraying liquid animal fat on the dried alfalfa prior to grinding, just ahead of the hammermill. The particulate effluent from the cyclone collector is thus reduced over 99% when 4% fat is added, and over 96%, when 2% fat is added. This not only controls pollution of the air in the immediate vicinity of the plant; it puts valuable meal "in the bag" instead of its being lost into the atmosphere. The tests showed, further, that the animal fat added substantially to the nutritive value of the collected alfalfa meal. Its value as a protein source in animal feeds was improved through the retention of the alfalfa dust which by its very nature is 50% higher in protein. It also showed improved storage characteristics in terms of reduced carotene (provitamin A) deterioration.

In reporting the results of their study, the researchers noted that: "Alfalfa dehydrator effluent constitutes a serious localized air pollution problem throughout many midwest states. It is recognized by scores of small towns as their only source of air pollution and, thus, the target of public indignation. The alfalfa particulates are the principal pollutant, causing allergic reactions and complaints about the soiling effect of settled alfalfa dust in homes and schools." The study team's report also noted that, "Ground alfalfa meal is a relatively fine material, with a very broad size distribution. (In processing the dried and chopped alfalfa) A blower, downstream from the grinder, delivers the products to the air-meal cyclone separator, where the meal is collected for bagging, bulk storage, or pelleting. This third cyclone is the main source of air pollution, accounting for 50 to 60 per cent of the total particulate effluent in a typical plant."

The researchers at the Institute for Environmental Research concluded that, "It is possible . . . to reduce pollutant effluent by either (1) altering the basic process to create less effluent or (2) altering the process to make the effluent more easily collected. The addition of animal fat to the alfalfa just prior to grinding appeared . . . to offer promise on both scores."

The study, conducted under a financial grant of The Fats and Protein Research Foundation, Inc., research arm of The National Renderers Association, found, also, that this added-fat process does not reduce pellet durability or resistance to rancidity of the product. The researchers' final report concluded that "the method appears to be a simple and inexpensive means of eliminating 50 to 60 percent of the total particulate effluent from a typical dehydrator plant."